

4.1.2 Effects to Environmental Quality

4.1.2.1 Noise

The criteria defining traffic noise impacts have been established by WisDOT through Wisconsin Administrative Code – Chapter Trans 405, “Siting Noise Barriers.” Traffic noise impacts occur when the predicted equivalent sound levels approach or exceed the noise level criteria (NLC) established for a type of land use, or, when predicted sound levels substantially exceed existing levels. WisDOT has determined “approach” to be defined as 1 dBA less than the NLC. Trans 405.04(2)(c) uses the word “equal” instead of “approach,” however, additional FHWA guidance following promulgation of Trans 405 required that the word “approach” be used when determining noise impacts. WisDOT has determined “substantial increase” to be 15 dBA or more than existing levels. Trans 405 was approved as WisDOT’s written policy by FHWA on February 29, 1996. The NLC established as part of Trans 405 are shown in Table 4.1.2.1-1, “Noise Level Criteria for Considering Barriers.” Noise impacts for the various alternatives are compared based on the number of receivers that approach or exceed the activity category and/or experience a substantial increase. Noise receivers are defined by the Department as “lower-level, front abutting units” that receive highway noise.

Table 4.1.2.1-1

Noise Level Criteria for Considering Barriers

Land Use Category	Leq(h) ¹ (dBA)	Description of Land Use Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above
D		Undeveloped lands.
E ²	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

¹ “Leq” means the equivalent steady-state sound level, which in a stated period of time contains the same acoustic energy in the time-varying sound level during the same period. For purposes of measuring or predicting noise levels, a receptor is assumed to be at ear height, located five feet above ground surface.

“Leq(h)” means the hourly value of Leq.

² Use of interior noise levels shall be limited to situations where exterior noise levels are not applicable.

Measurement of existing sound levels on proposed new roadways was conducted using a Larson Davis System 814 Sound Level Meter. Existing sound levels at current roads within the project corridor are predicted through modeling, using the Federal Highway Administration’s (FHWA) Traffic Noise Model (TNM) version 2.5. Predicting future traffic noise was modeled at the same locations. Future traffic noise was predicted using the TNM model. Sound level measurement and modeling locations are shown on Appendix E, “Noise Analysis.” The Traffic Noise Impact Summaries for the various alternatives can also be found in Appendix E, “Noise Analysis.”

Based on modeling of alternatives, in general, future impacts to land use Category B receivers (66 dBA) on the US 8 corridor are estimated at or closer than approximately 100 feet, while impacts to land use Category C (71 dBA) are estimated at or closer than approximately 30 feet. Table 4.1.2.1-2, "Traffic Noise Impacts," summarizes the NLC results of corridor modeling of all individual alternatives.

Table 4.1.2.1-2
Traffic Noise Impacts

Alternative Number	Alternative Name	Noise Level Criteria (NLC) Impacts	
		Number of Category B Exceedances (> 66 dBA)	Number of Category C Exceedances (>71 dBA)
No Build	No Build	125	0
1A	Deer Lake On-Alignment	1	0
1B	Deer Lake Southern Alignment	1	0
1C	Deer Lake Far South Alignment	1	0
2	Apple River/Clover Lake On-Alignment	2	0
3A	Range On-Alignment	0	0
3B	Range Northern Alignment	0	0
3C	Range Southern Alignment	0	0
4A	Joel Flowage On-Alignment	0	0
4B	Joel Flowage Northern Alignment	0	0
5A	Turtle Lake Alternative 1 (Short Southern Bypass)	0	0
5B	Turtle Lake Alternative 2 (Long Southern Bypass)	0	0
5C	Turtle Lake Alternative 3 (North Bypass)	0	0
5D	Turtle Lake Alternative 4 (Through-town)	3	0
6A	Poskin On-Alignment	3	0
6B	Poskin Southern Alignment	3	0
7A	Barron Alternative A (Short Southern Bypass)	0	0
7B	Barron Alternative B (Long Southern Bypass)	0	0
7C	Barron Alternative C (Northern Bypass)	0	0
7D	Barron Alternative D (Through-town)	53	4

Under the No Build Alternative, it is estimated that there would be 125 Category B NLC exceedances. All of these receivers are residential receivers with the exception of one hotel located on the corridor in Turtle Lake. Under the No Build alternative, noise levels will continue and likely increase as traffic volumes increase. Higher speed noise will likely be replaced by stop and start and idling noise as congestion builds.

Under the 19 remaining alternatives, it is predicted that 11 alternatives would experience no NLC impacts and seven alternatives would experience minimal impacts. The Barron Through-town Alternative (Alternative D) would experience the most impacts with 53 Category B (residential) NLC exceedances and 4 Category C (commercial/industrial) exceedances.

Modeling has predicted that few, if any, representative receivers will experience a substantial increase (greater than 15 dBA) over existing conditions. The areas most vulnerable to this type of exceedance would be in areas of new road construction. In areas where roads and traffic noise do not currently exist to any appreciable degree, placement of new highways could potentially increase noise by more than 15 dBA.

Because the majority of receivers within 100 feet (30.5 meters) of the existing highway would be acquired as part of the build alternatives, there would be relatively few old receivers that would be affected in comparison to the no-build alternative.

When traffic noise impacts occur, measures to reduce or eliminate impacts should be considered by the project sponsor where such impacts are determined to be “reasonable and feasible.” Trans 405 mandates that construction of noise barriers must reduce noise levels by 8 dBA at a cost of \$30,000 per dwelling unit or less to be considered reasonable.

Trans 405 construction directives will not be achieved at impacted receivers found in rural areas because the number of sensitive receivers in close proximity to each other is too low to allow a reasonable abatement structure cost per dwelling unit. In urban areas with greater densities, gaps in the barrier resulting from multiple access points typically result in the barrier not being able to achieve the 8 dB required reduction.

Abatement structures provide the most protection when the receiver is completely shielded and line of sight with the noise source is broken. Driveway entrances and intersections necessitate additional limitations to the structure’s effectiveness. These limitations include placement of the structure to allow for proper right-of-way and sight distances at corners and potentially lowering the structure to allow for highway entrance safety. Furthermore, commercial establishments within towns would not want visibility of their businesses obscured.

Therefore, there are no areas within the 20 alternatives evaluated that will meet the TRANS 405 criteria.

4.1.2.2 Air Quality

Under the No Build alternative, traffic volumes on US 8 are conservatively projected to increase by approximately two percent annually. US 8 has current traffic volumes that are nearly exceeding WisDOT’s design year traffic volumes for two lane rural highways. The increased traffic volume could cause unstable traffic flow, lower levels of service, increased congestion, and longer waiting times at intersections. In the design year 2030, the ability for traffic on side roads to access or cross US 8 in both the rural and urban areas will be difficult. The result of these impacts would likely be an increase in vehicle emission levels.

4.1.2.2.1 Regional (Mesoscale) Impacts of the Build Alternatives

At the mesoscale level, the motor vehicle pollutants of concern are oxides of nitrogen (NO_x) and volatile organic compounds (VOC), which can be combined in a series of chemical reactions catalyzed by sunlight to produce ozone (O₃). Depending on concentration levels, length of exposure and a variety of physical components of the person experiencing exposure, ground-level ozone may cause headaches, dizziness, and difficulty in breathing.

According to the Intermodal Surface Transportation Efficiency Act (ISTEA of 1991, no federal agency may approve or fund a transportation project until the project has been shown to conform to the applicable State Implementation Plan (SIP) for air quality. The 1990 Clean Air Act Amendments (CAAA) provide a general definition of SIP conformity, applicable to all transportation plans, programs, and projects funded under Title 23 U.S.C. or the Federal Transit Act, which states that such activities will not:

- (i) Cause or contribute to any new violation of any National Ambient Air Quality Standard (NAAQS) in any area;
- (ii) Increase the frequency or severity of any existing violation of NAAQS in any area;
- (iii) Delay timely attainment of any NAAQS or any required interim emissions reductions or other milestones in any area.

Both Polk County and Barron County are within the Southeast Minnesota – La Crosse, (Wisconsin) Interstate Air Quality Control Region as designated under Wisconsin Administrative Code – Chapter NR 404.03. According to the USEPA, both Polk County and Barron County are presently in attainment for all NAAQS as established by the USEPA and therefore in compliance with the SIP.

4.1.2.2.2 Local (Microscale) Impacts of the Build Alternatives

A. Carbon Monoxide (CO)

In Wisconsin, carbon monoxide (CO) is the only motor vehicle pollutant currently analyzed at the microscale level as required by the NEPA. The NAAQS criteria for an adverse CO impact is an exceedence of the one-hour standard of 35 parts per million (ppm) of the eight-hour average of 9 ppm.

Wisconsin Administrative Code – Chapter NR 411.04(2)(b) provides criteria for exempting indirect sources from construction permit requirements. This project does not meet these exemption criteria. However, Chapter 411.04(2)(c) provides for exemption of indirect sources from construction permit requirements using an approved screening analysis.

Maximum CO concentrations associated with highways will usually occur in the vicinity of signalized intersections because of excess emissions generated by idling and accelerating vehicles. A screening analysis was conducted using the U.S. EPA MOBILE 6.2 model to estimate CO emission factors for gasoline and diesel powered highway motor vehicles. The MOBILE 6.2 emission factors were then applied to the U.S. EPA dispersion model, CAL3QHC, to predict CO concentrations from motor vehicles at two representative worst case intersections. Both of the above models are approved by the WDNR – Bureau of Air Management (BAM) for use in the screening process. For purposes of CO screening for this project, the intersections of US 8 with WIS 25S (S. and N. Mill Street) and US 8 with WIS 25N (6th Street) were selected. These two intersections were chosen because they represent potential “worst case scenarios” in the corridor, based upon projected traffic volumes and proximity to identified receptor locations. Results of the screening analysis are presented in Tables 4.1.2.2-1 and 4.1.2.2-2.

Table 4.1.2.2-1

Predicted CO Concentrations at the US 8 and WIS 25S Intersection

Receptor Location or Site Description (See Appendix F)	Carbon Monoxide (ppm) ⁽¹⁾			
	1 – Hour Peak ⁽²⁾		8 – Hour Average ⁽³⁾	
	Construction Year	Construction Year Plus Ten Years	Construction Year	Construction Year Plus Ten Years
	2010	2020	2010	2020
1	4.5	4.3	2.5	2.4
2	4.2	4.0	2.2	2.2
3	4.1	4.0	2.3	2.3
4	4.3	4.1	2.5	2.4
5	3.8	3.8	2.1	2.0
6	4.7	4.4	2.6	2.5
7	3.8	3.8	2.2	2.2
8	3.8	3.6	2.0	1.9
9	4.8	4.5	2.9	2.6
10	4.6	4.5	2.5	2.4
11	4.2	4.1	2.4	2.3
12	4.9	4.4	2.8	2.7
13	4.4	4.3	2.4	2.3
14	4.4	4.2	2.5	2.4
15	4.3	4.1	2.5	2.2
16	3.7	3.7	2.2	2.1
17	3.9	3.8	2.2	2.2
18	4.4	4.3	2.5	2.5
19	3.8	3.8	2.2	2.1
20	4.2	4.1	2.5	2.3

⁽¹⁾ ppm = parts per million – parts of CO per million parts of gas.

⁽²⁾ Includes 1-hour ambient background CO concentration of 3.3 ppm.

⁽³⁾ Includes 8-hour ambient background CO concentration of 1.8 ppm.

Table 4.1.2.2-2

Predicted CO Concentrations at the US 8 and WIS 25N Intersection

Receptor Location or Site Description (See Appendix F)	Carbon Monoxide (ppm) ⁽¹⁾			
	1 – Hour Peak ⁽²⁾		8 – Hour Average ⁽³⁾	
	Construction Year	Construction Year Plus Ten Years	Construction Year	Construction Year Plus Ten Years
	2010	2020	2010	2020
1	4.4	4.2	2.5	2.3
2	4.5	4.1	2.4	2.4
3	4.9	4.6	2.9	2.7
4	4.2	4.0	2.3	2.3
5	3.9	3.9	2.2	2.0
6	3.9	3.8	2.3	2.3
7	4.3	4.1	2.4	2.3
8	5.2	4.6	3.0	2.6
9	4.6	4.4	2.7	2.6
10	4.5	4.3	2.6	2.5
11	4.2	4.1	2.4	2.3
12	4.4	4.1	2.5	2.4
13	4.9	4.5	3.0	2.7
14	4.7	4.6	2.8	2.7
15	4.3	4.2	2.4	2.2
16	4.0	3.9	2.2	2.1
17	4.4	4.2	2.5	2.4
18	4.8	4.7	3.0	2.7
19	4.6	4.5	2.7	2.5
20	4.6	4.4	2.6	2.5

⁽¹⁾ ppm = parts per million – parts of CO per million parts of gas.

⁽²⁾ Includes 1-hour ambient background CO concentration of 3.3 ppm.

⁽³⁾ Includes 8-hour ambient background CO concentration of 1.8 ppm.

Since no receiver will be exposed to CO concentrations exceeding 75 percent of the NAAQS during the construction year nor within ten years of construction, the Department is exempt from obtaining a construction permit prior to project implementation.

See Section 7.3 Correspondence for a letter of concurrence from WDNR-BAM. Should substantial changes occur during final design, the Department will re-evaluate CO levels and seek additional concurrence from WDNR-BAM.

B. Mobile Source Air Toxics (MSAT)

Of the 188 air toxics identified in the Clean Air Act, 21 are identified by the EPA as Mobile Source Air Toxics (MSAT). The EPA has further identified 6 of the 21 MSATs as priority MSATs including: *benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene*. The FHWA has developed a tiered approach for analyzing MSATs in NEPA documents. US 8 EIS alternatives are included in tier two, projects with Low Potential MSAT Effects. For this tier a summary of current studies regarding MSAT health impacts along with a qualitative assessment of MSAT emissions should be conducted. For information regarding health impact studies conducted on MSATs in general and a tier two qualitative discussion as it relates to the project alternatives specifically see Appendix F.

4.1.2.3 Hazardous Materials

A Phase 1 Reconnaissance and Record Review was completed and a total of 116 hazardous material sites within the specified search radii were identified. The sites were defined as “high,” “medium,” or “low” risk

sites. Most of the sites were located near the populated areas along the corridor, but a few sites were located in the rural areas from WIS 35 (N) to Range. The majority of sites with medium- and high-risk rankings were located in or near Barron with direct access to US 8.

Most of the hazardous material sites are leaking underground storage tank (LUST) sites, registered storage tank sites, or auto repair/salvage facilities located along the corridor. A solid waste facility is located within a mile of the project corridor in the Town of Balsam Lake. Another solid waste facility is located in the village of Turtle Lake about 0.5 miles (0.8 km) north of the southern bypass alternatives. Two solid waste facilities are located in the city of Barron. Solid Waste systems recovery is located just south of Barron Alternative B. The city of Barron Solid Waste Facility is located less than 0.25 miles (0.4 km) south of existing US 8.

The Almena Sportsman's Club operates a shooting range east of Almena and just west of 8th Street. The range is located a distance south of US 8 with the shooting and drop zone directed south, away from US 8. The facility appears to be far enough south of the corridor that the site should not be an environmental concern.

The Phase 1 was conducted in the initial stages of the project and before the later development of the Deer Lake Far Southern Realignment. The Far Southern Realignment is a little over 0.5 mile (0.8 km) south of existing US 8, outside the initial database search limits. Review of the Far Southern Realignment was performed and documented in the May 7, 2004 Hazardous Material Assessment Addendum letter. The Executive Summary and a summary table from the Phase 1 Reconnaissance and Record Review report and the Addendum letter are provided as Appendix D.

As corridor alternatives were refined, the numbers of hazardous material sites that may impact each alternative were evaluated. Table 4.1.2.3-1 summarizes the sites of potential environmental concern along each corridor alternative.

Table 4.1.2.3-1

Summary of Corridor Hazardous Material Sites

Segment	Corridor Alternative	Level of Concern			Total Number of Sites
		Low	Medium	High	
I (200th St. to 120th St.)	Deer Lake On-alignment	5	0	0	5
	Deer Lake Southern Realignment	2	0	0	2
	Deer Lake Far Southern Realignment	2	0	0	2
II (120th St. to County E)	Apple River/Clover Lake On-alignment	4	0	0	4
	Range On-alignment	3	2	0	5
III (County E to 50th St.)	Range Northern Realignment	3	0	0	3
	Range Southern Realignment	3	0	0	3
IV (50th St. to 5th St.)	Joel Flowage On-alignment	0	0	0	0
	Joel Flowage Northern Realignment	0	0	0	0
V (15th St. to 5th St.)	Turtle Lake Alternative 1	0	0	0	0
	Turtle Lake Alternative 2	0	0	0	0
	Turtle Lake Alternative 3	0	0	0	0
	Turtle Lake Alternative 4 (Through-town)	8	3	0	11
VI (5th St. to Sweeny Pond Creek)	Poskin On-alignment	4	3	2	9
	Poskin Southern Realignment	3	3	0	6
VII (Sweeny Pond Creek to US 53)	Barron Alternative A	2	0	0	2
	Barron Alternative B	2	0	0	2
	Barron Alternative C	0	0	0	0
	Barron Alternative D (Through-town)	40	9	27	76

Having completed a Phase 1 investigation for the US 8 corridor, WisDOT has determined that once the preferred alternative is selected, sites that warrant further investigation will be identified. The WDNR and possibly affected

parties will be notified of the results. WisDOT will work with all concerned to insure that the disposition of any petroleum contamination is resolved to the satisfaction of the WDNR, WisDOT OEA, and FHWA before acquisition of any questionable site, and before advertising a project for letting. Non-petroleum sites will be handled on a case by case basis with detailed documentation and coordination with FHWA as needed.

4.1.2.4 Visual Aesthetics

Two general types of viewer groups would be affected by this project and are defined by their view perspective of the roadway. The first group is viewers that use the road and have a view from the road. This group includes commuters, tourists, and local area residents. The second group is viewers that view the roadway, and this group may include residents, tourists, and commercial and industrial workers. Viewers of the roadway may be associated with both viewer groups.

Visual aesthetics would be affected to some extent for each corridor segment by all of the build alternatives. The visual quality would change slightly for on-alignment alternatives as the roadway is expanded from two lanes to four lanes, intersections are changed, and local access to US 8 is modified. The bypass alternatives in Turtle Lake and Barron would have a more substantial impact on the visual character of US 8. The realignment alternatives of Deer Lake, Range and Poskin would also affect the visual character of US 8.

Viewers that use the roadway would be affected by a substantially altered viewshed for any of the bypass alternatives and by a slightly altered viewshed of expanded on-alignment roadway. Other viewers would be affected by a new roadway that is closer to homes and businesses. The effect of each alternative in each corridor segment is described below and descriptions follow the study corridor from west to east.

- Segment I – 200th Street to 120th Street

The view quality of the roadway would be altered by the expansion of the existing roadway. The current US 8 would be used as a frontage road. The view would also be changed by the southern realignment alternatives in the segment from WIS 35 (N) to 160th Street. On the existing roadway, Deer Lake is visible in two areas, which may not be visible from the southern realignments. The Deer Lake Southern Realignment is shown in Figure 4.1.2.4-1.

- Segment II – 120th Street to County E

The view along this corridor segment would not be substantially changed, but slightly altered by the addition of two lanes of roadway. A new structure would be required over Clover Lake and Apple River, which may change the views of those waterbodies. Some of the forested edges along the corridor would be reduced by the roadway expansion.

- Segment III – County E to 50th Street

The view from the new Range Southern Realignment route would have a largely agricultural view and the Northern Realignment would have a forested view for most of the route. The on-alignment view would be altered by the addition of two lanes of roadway and many of the existing buildings of Range on the current route would be relocated.



Figure 4.1.2.4-1 Deer Lake Southern Realignment

- Segment IV – 50th Street to 15th Street

For the corridor segment from 50th Street to 15th Street, the view would remain relatively unchanged for both the On-alignment and the Northern Realignment. The view is largely agricultural with some forested areas. For the On-alignment Alternative, the view of Joel Flowage may be impacted slightly by the slight alignment shifts proposed.

- Segment V – 15th Street to 5th Street

The Turtle Lake On-alignment Alternative in Segment V would not alter the view substantially through the village of Turtle Lake. Frontage roads would be added, some existing parking areas would be reduced, and one building in the village may be relocated. Figure 4.1.2.4-2 illustrates a portion of the Turtle Lake Through-town Alternative. The view from US 8 would be substantially altered if a bypass were constructed around the community. Alternative 1 (Short South Bypass) would be constructed through an agricultural area south of the community. A forested and wetland area southeast of the village would be visible along the new route. Waterbodies that would be visible along the new corridor would be the South Branch Beaver Brook, Mill Pond, and Mud Lake. The route would return close to the existing roadway near 2 1/2 Street just east of Turtle Lake. The roadway would be shifted about 500 feet (152 m) south of Upper Turtle Lake. Alternative 2 (Long South Bypass) follows most of the same route as Alternative 1, except that after crossing County KK, Alternative 2 follows south of the Cattail Trail northeast back to existing US 8. This route is through agricultural land and is closer to Lower Turtle Lake. Alternative 3 (North Bypass) around Turtle Lake continues north through an agricultural area from existing US 8 north to County T. After County T, the route would have a forested view through uplands and forested wetlands. This north alternative would be located adjacent to Hillman Lake and connect with the mainline just east of Turtle Lake just after Popular Street.

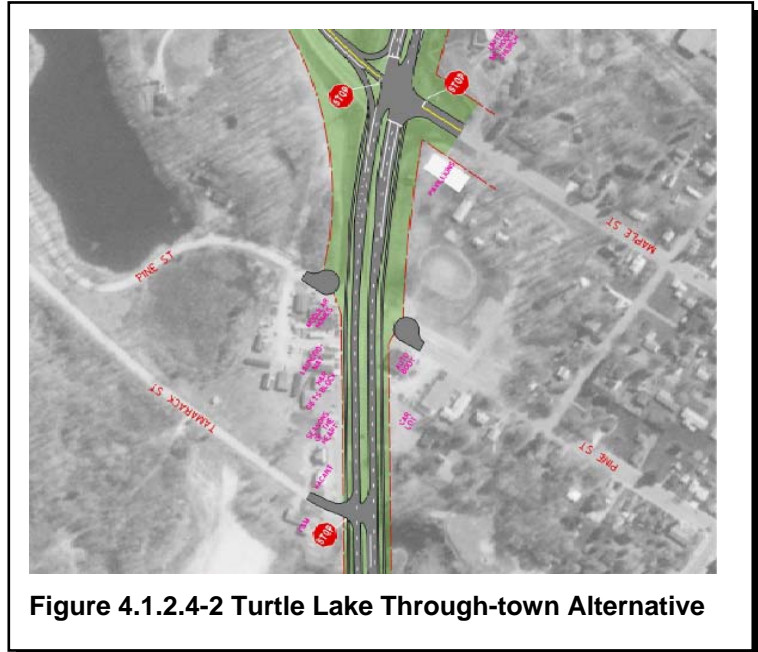


Figure 4.1.2.4-2 Turtle Lake Through-town Alternative

- Segment VI – 5th Street to Sweeny Pond Creek

Segment VI continues along the existing route of US 8 for most of this segment. The Southern Realignment alternative shifts south just west of Poskin at about 8 1/2 Street and then reconnects just east of 10th Street. The realignment crosses through mostly agricultural lands before it reconnects with the existing US 8.

- Segment VII – Sweeny Pond Creek to US 53

The north and south bypasses of Barron would continue through mostly agricultural lands. Barron Alternative A follows the existing alignment and heads south near County T. The view of the forest edges along the existing roadway from Sweeny Pond Creek to County T may be reduced as the roadway is expanded. The through-town route would substantially alter the view because of the relocations required for the alternative.

4.1.3 Effects to Cultural Resources

4.1.3.1 Archaeological Resources

In the initial phases of alternative development, archaeological resources were identified in a site file search and literature search conducted by the project archaeologist. In addition to the literature review, a Phase 1 field investigation was conducted in the fall of 2003 to identify other sites along the project corridor, verify sites identified in the literature review, and determine the need for Phase 2 investigations.

From the Phase 1 field review, four sites were verified or identified as potentially eligible for the National Register of Historic Places (NRHP) and would require Phase 2 investigation if they are located on the preferred alternative alignment. The first three sites are located just south of Upper Turtle Lake on the mainline of Segment V. These sites, previously identified in the literature search, are 47 Bn 186, 47 Bn-263, and 47 Bn-266. A new site identified in this field review, 47 Bn-294, would be affected by Turtle Lake Alternative 2. Table 4.1.3.1-1 describes the archaeological sites that would require Phase 2 analysis if the preferred alternative would affect them.

A Phase 2 analysis was previously conducted for a site (47 Pk-78) along existing US 8 on Segment I near Deer Lake and it was determined that the site was not eligible for the NRHP. Regardless, the site was avoided by all of the Deer Lake alternatives in Segment I.

Cemeteries that are located very close to the project corridors are the Shiloh (Apple River) Cemetery, St. Mathew's Cemetery, and the Wayside Cemetery. Alignment adjustments in these specific areas may be necessary following selection of the preferred alternatives. The Wisconsin Burial Site Preservation Law requires that there be a minimum 5-foot (1.5 m) buffer between a grave and a disturbance. The Shiloh cemetery is located along the existing US 8 in Segment II. St. Mathew's Cemetery is just east of Almena in Segment VI, and the Wayside Cemetery is located in the city of Barron in Segment VII.

Table 4.1.3.1-1

Archaeological Sites Requiring Phase 2 Analysis

Site Name and Number	Description	Phase 2 Required	Alternatives Impacting Sites
Swenson 47 PK-78	Historic Euro-American/Woodland – Campsite/Village	Completed	Segment I, Site not affected
Turtle Creek 47 Bn-186	Archaic, Late Archaic/Early Woodland, Woodland, Middle Woodland/Late Woodland – Campsite/Village	Required	Segment V; Alt 1,3 and 4
47 Bn-263	Archaic, Middle Archaic, Late Archaic/Early Woodland, Woodland, Middle Woodland/Late Woodland – Campsite/Village	Required	Segment V; Alt 1,3, and 4
47 Bn-266	Unknown Prehistoric – Campsite/Village	Required	Segment V; Alt 1,3, and 4
Moschkau 47 Bn-294	Late Archaic/Middle Woodland – Campsite/Village	Required	Segment V, Alt 2

4.1.3.2 Historical Resources

The project historian surveyed the US 8 project corridor in the summer of 2002 to identify historic properties that may be eligible for the NRHP. The historical survey is required to comply with Section 106 of the 1966 National Historic Preservation Act. Areas of potential effects (APE) for the corridor were defined as properties adjacent to the existing right-of-way along US 8, realignments of US 8 around the smaller communities of Range and Poskin, realignments around the environmentally-sensitive areas of Deer Lake and Joel Marsh, and bypasses around the Village of Turtle Lake and the City of Barron. Properties that were at least 50 years old were surveyed and photographed to be evaluated for historic integrity.

Twenty properties in the APE met the criteria for a historical inventory. These inventories were submitted to the State Historical Preservation Office (SHPO) with recommendations that six properties may be eligible for the NRHP. The SHPO determined that five of the properties in the APE for this project would be eligible for the National Register of Historic Places. The five properties are:

- Deer Lake School, 1632-34 US 8, Town of Balsam Lake, Polk County

The Deer Lake School is unevaluated and would be eligible for the National Register under Criteria C, for architecture. Figure 4.1.3.2-1 shows the current view of the Deer Lake Schoolhouse from US 8. Under Criterion C, the Deer Lake School is an excellent and intact example of the twentieth century one-room school. The Deer Lake School was constructed in 1930, and functioned as a schoolhouse until 1957. The only alteration to the Deer Lake School was the conversion of the south coatroom into a bathroom in the early 1990's. This change however should not affect the integrity of the building.



Figure 4.1.3.2-1 Deer Lake Schoolhouse

- Paul Revere School, Township District No. 6 School, 1298 Eleventh Street, Town of Clinton, Barron County

The Paul Revere School would be eligible for the National Register under Criterion C, and is a good and intact example of a nineteenth century one-room school. The Paul Revere School retains a high degree of integrity, despite its boarded opening and small, rear entry porch addition. The period of significance in architecture extends from the date of construction in 1893 to 1920. The Paul Revere School is also possibly eligible under Criterion A, in education, representing the era of the rural, one-room school in Wisconsin. The Paul Revere School was built in 1892 and served students until 1961. The period of significance in education begins in 1892 and continues to 1954.

The Paul Revere School had exterior alterations that include the replacement of a wooden staircase on the front façade, the addition of the rear entry porch into the basement, and the bricking of the opening next to the rear entry porch. The function of the staircase is to provide access to the school; therefore, the replacement does not compromise the integrity of the school. The placement of the changes on the rear façade minimizes their impact. The present outhouse is unaltered. Overall, the Paul Revere School retains very good integrity.

- Stebbins, Edward N., Sr. and Mary (Treat) House, 130 East Division Avenue, City of Barron, Barron County

The Edward N. and Mary (Treat) Stebbins House would be eligible under Criterion C, as an outstanding and intact example of the Georgian Revival style. The period of significance extends from the original date of construction in 1897 to 1908. The alterations to the Stebbins house are minimal. The enclosure of the back porch is not visible from either street facade and presents an appearance compatible with the historic character of the house. Although the fire escape is an alteration, it is easily reversible. The replacement of the attic windows on the west-facing façade with a door is a minimal change that does not impair the integrity of the house. The interior alterations are minimal and confined to private, upstairs spaces. The first floor retains many of the original decorative features. These changes do not affect the integrity of the Stebbins House.

- Barron Carnegie Library; Barron City Library, 10 North Third Street, City of Barron, Barron County

The Barron Carnegie Library would be eligible for the National Register under Criterion C, Architecture. It is a fine example of an early 20th century library building, displays the distinctive characteristics of a Prairie School and represents the work of the master architectural firm, Claude and Starck. Figure 4.1.3.2- shows the current view of the library from N. Third Street. The 1998 addition is large, but its location to the rear and side of the Barron Carnegie Library reduces its impact. The period of



Figure 4.1.3.2-2 Barron Carnegie Library

significance in architecture coincides with the 1912 construction. The Barron Carnegie Library is also possibly eligible for the National Register under Criterion A, in education for the role it has played as an educational and cultural center for the residents in Barron. The period of significance in education extends from 1912 to 1954.

The ell-shaped addition to the Barron Carnegie Library is large and is to the rear and side of the original building. The addition's low, one-story, flat-roofed form further softens its impact. The addition is also compatible with the original section, matching the color and finish of red brick with white accents, the horizontal emphasis of the Prairie School, as well as the regular fenestration pattern and frieze windows of the original. On the interior, the original library's basement was remodeled for restrooms and a checkout desk in 1998, while the first-floor reading room was left intact. Although the basement plan and uses changed, these uses were mostly ancillary. The Barron Carnegie Library has been altered, but the alterations do not compromise the integrity of the building, particularly because it continues to serve its original purpose.

- Heffner's Opera Block, 8-10 South Third Street, City of Barron, Barron County

The Heffner Opera Block would be eligible for the National Register under Criteria A, in entertainment/recreation, for the role it has played in the social and recreational life of the community. The period of significance in entertainment/recreation extends from 1909 to 1949, when the opera hall could no longer be used by the public. Heffner's Opera Block also is possibly eligible under Criteria C, architecture, as a good and intact example of an opera hall building type. The period of significance in architecture coincides with the date of construction in 1909. Exterior alterations to the Heffner Opera Block include covered transoms on the front façade, one new doorway and one new window on the north-facing façade, blocked window openings on the south-facing façade, and a 1990 addition on the rear facade. On the interior, the commercial spaces are intact, except that the office of the M.L. Anderson & Sons, Inc. was moved from the southwest corner to the northeast corner during the 1930s, and some wall and ceiling finishes in both commercial spaces have been changed. The opera hall retains a high degree of integrity. The only changes are the concession stand built under part of the balcony, the basketball backboards installed during the period of significance, and the tiny apartment tucked into the west end of the opera hall. These alterations do not compromise the integrity of Heffner's Opera Block.

4.1.3.3 Potential Effects on Historic Properties

Deer Lake School

There are 3 alternatives near the Deer Lake School. All three alternatives have been shifted south of existing US 8 and avoid impacts to the Deer Lake School. The existing US 8 roadway near the school house would

remain in its current location and be utilized as a frontage road under each alternative. No direct or indirect effects are anticipated.

Paul Revere School, Clinton Township District No. 6 School

Barron Alternative B would be nearest to the Paul Revere School at a distance of over 1,500 feet (457 m) away at the closest point. No direct or indirect effects are anticipated.

Stebbins, Edward N., Sr. and Mary (Treat) House

The Stebbins House is located in downtown Barron on existing US 8. Barron Alternative D, the through-town route, does not affect this property because the alternative is widened to the north, preserving all buildings on the south side of the street. Indirect effects would be minimal.

Barron Carnegie Library; Barron City Library

Barron Alternative D would require relocation of the Barron Carnegie Library. The library is located on the north side of US 8 at N. Third Street. Alternative D widens US 8 to the north, preserving all buildings on the south side of the street. Indirect effects would be minimal. The alignment could be shifted to the south to avoid the property; however, the alternative would then impact the Heffner's Opera Block (see discussion below), located directly south of the Barron Carnegie Library.

Heffner's Opera Block/Anderson's Block

The Heffner Opera Block is located in downtown Barron on the corner of US 8 and S. Third Street. Barron Alternative D does not affect this property since the road would be widened to the north, preserving existing structures on the south side of the street. Indirect effects would be minimal.

4.1.4 Effects from Other Projects

4.1.4.1 US 8, Cameron to USH 51

The US 8 Corridor Study from the village of Cameron in Barron County to US 51 in Lincoln County identified the corridor's needs and developed concepts and strategies to meet those needs. The concepts included corridor preservation, the addition of passing lanes, the addition of climbing lanes, intersection improvements, cross-section modification, roadway maintenance, and implementing ITS strategies.

WisDOT is planning to include some spot improvements and possibly passing lanes along the corridor, in their six-year program. These would be relatively small projects designed to improve the corridor's operation and safety in specific locations. These proposed improvements would likely benefit the entire US 8 corridor in general, but will have no direct effect on the US 8 EIS project study area.

4.1.4.2 Cameron US 8 Realignment

The Village of Cameron is located about 1.5 miles (2.4 km) northeast of the US 8/US 53 interchange. From the interchange, US 8 proceeds due east for about 1 mile (1.6 km) until it intersects County SS. At the intersection US 8 turns due north and is concurrent with County SS for 0.75 mile (1.2 km) into the Village whereupon it turns due east again. WisDOT is planning to construct a US 8 Realignment project to bypass the Village of Cameron in 2012 but in August 2005 WisDOT announced it would delay construction until community consensus was reached on funding agreements. Planning and mapping of the corridor, designing an acceptable proposal and purchasing necessary right of way will continue. Whenever a US 8 Realignment near Cameron is constructed, it will not have much of an impact to the US 8 EIS corridor. Continuity of the roadway will increase because the route will no longer proceed through the Village of Cameron with this connection. Similar to any future spot improvements on US 8 between Cameron and US 51, the Cameron Realignment will help to improve safety and efficiency of US 8.

4.1.4.3 Minnesota Trunk Highway 8 (TH 8) Study

The TH 8 Corridor Study was conducted by MNDOT beginning in the fall of 2000. The project limits were from I-35 to the west in Chisago County, Minnesota, to the intersection of TH 8/WIS 35 to the east in Polk County, Wisconsin. The *Trunk Highway 8 Scoping Document/Draft Scoping Decision Document*, published in September 2002, determined that the project would require an EIS. The results of the study led to a recommendation of improvements to the existing alignment. Based on public participation, assessment of alternatives to meet purpose and need, and the schedule of proposed improvements, MNDOT, in concurrence with FHWA and the TH 8 Task Force, selected Alternative 3 for further consideration. Alternative 3 included transportation improvements along the existing TH 8 alignment including capacity expansion on some sections, traffic control, and access improvements. The EIS process was terminated since the project no longer required the addition of right-of-way. MNDOT plans to provide spot improvements for TH 8 with the environmental documentation processed for each project separately.

Since only on-alignment improvements are anticipated as a result of the TH 8 project, no substantial effect is anticipated on the US 8 project in Wisconsin. However, if the study is revisited and other larger-scale TH 8 alternatives are selected, the need for improvements on US 8 may be increased in expectation of more traffic traveling north and south from the Minneapolis-St. Paul metropolitan area. In addition, MNDOT has stated its interest in balancing traffic loading over several routes in the system rather than concentrating it on TH 8 and upgrading only that facility. There would be a potential impact if the concept of attracting TH 8 through-traffic to “split” at St. Croix Falls is pursued resulting in a traffic shift off TH 8 and over to TH 95, TH 97, and I-35 if the Twin Cities are the destination.